

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO | FILING DATE | | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|-------------------|----------------------|---------------------|------------------|
| 10/730,986 12/10/2003 | | Masayuki Sakakura | 12732-108002 | 5137 | |
| 26171 | 7590 | 10/22/2004 | | EXAMINER | |
| FISH & R | | | TRAN, THIEN F | | |
| 1425 K ST 11TH FLO | • | <i>I</i> . | ART UNIT | PAPER NUMBER | |
| | | 20005-3500 | 2811 | | |

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | •/ | |
|--|--|--|---|
| | Application No. | Applicant(s) | |
| · | 10/730,986 | SAKAKURA ET AL. | |
| Office Action Summary | Examiner | Art Unit | _ |
| | Thien F Tran | 2811 | |
| The MAILING DATE of this communication Period for Reply | appears on the cover sheet with | the correspondence address | |
| A SHORTENED STATUTORY PERIOD FOR RE THE MAILING DATE OF THIS COMMUNICATIO - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a - If NO period for reply is specified above, the maximum statutory per - Failure to reply within the set or extended period for reply will, by sta Any reply received by the Office later than three months after the meanned patent term adjustment. See 37 CFR 1.704(b). | N. R 1.136(a). In no event, however, may a represent the statutory minimum of thirty riod will apply and will expire SIX (6) MONT atute, cause the application to become ABA | ly be timely filed (30) days will be considered timely. HS from the mailing date of this communication. NDONED (35 U.S.C. § 133). | |
| Status | | | |
| 1) Responsive to communication(s) filed on _ | | | |
| - · · · · · · · · · · · · · · · · · · · | his action is non-final. | | |
| 3) Since this application is in condition for allo closed in accordance with the practice under | • | • | |
| Disposition of Claims | | | |
| 4) ☐ Claim(s) 29-57 is/are pending in the applicated 4a) Of the above claim(s) is/are without 5) ☐ Claim(s) 32-37,41-46 and 48-57 is/are allow 6) ☐ Claim(s) 29,31,38 and 40 is/are rejected. 7) ☐ Claim(s) 30,39 and 47 is/are objected to. 8) ☐ Claim(s) are subject to restriction and subject to restriction | drawn from consideration. ved. | | |
| Application Papers | | | |
| 9)☐ The specification is objected to by the Exam | niner. | | |
| 10) The drawing(s) filed on is/are: a) a | | | |
| Applicant may not request that any objection to | = | • • | |
| Replacement drawing sheet(s) including the cor | • | | |
| Priority under 35 U.S.C. § 119 | | - | |
| 12) Acknowledgment is made of a claim for fore a) All b) Some * c) None of: 1. Certified copies of the priority docum 2. Certified copies of the priority docum 3. Copies of the certified copies of the papplication from the International But * See the attached detailed Office action for a | ents have been received. ents have been received in Ap priority documents have been r reau (PCT Rule 17.2(a)). | plication No eceived in this National Stage | |
| Attachment(s) | " □ | (DTO 442) | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB. Paper No(s)/Mail Date 12/10/03. | | Mail Date ormal Patent Application (PTO-152) | |

DETAILED ACTION

Claim Objections

Claim 35 is objected to because of the following informalities: line 12, "the pixel 30 electrode" should be --the pixel electrode--. Appropriate correction is required.

Applicant is advised that should claims 38-40 be found allowable, claims 29-31 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claims 32-34 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 41-43. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Bae (US 5,742,363).

Art Unit: 2811

Bae discloses the claimed method of manufacturing a semiconductor device (Figs. 4A-4F), comprising: forming a thin film transistor over a substrate 1; forming a first insulating film 7 covering the thin film transistor; forming a contact hole by etching the first insulating film 7; forming a metal wiring 9 on the first insulating film, wherein the metal wiring is electrically connected to the thin film transistor; forming a second insulating film 12 on the first insulating film and the metal wiring 9 by coating; etching the second insulating film 12 on the metal wiring to expose a surface of the metal wiring 9; and forming a pixel electrode 13 on the second insulating film, wherein the pixel electrode is in contact with the metal wiring 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 31 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bae (US 5,742,363).

Bae discloses the semiconductor device as a display device but does not specifically disclose the semiconductor device being used as a display in at least one selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggle-type display, a player using a recording medium, digital camera, and a projector. However, it is obvious to use the liquid crystal display device as taught by Bae in the conventional devices like a personal computer, a video camera, a mobile

computer, a goggle-type display, a player using a recording medium, digital camera, and a projector for the many advantages that the display of Bae provides such as increasing the yield in the fabrication of the thin film transistor.

Allowable Subject Matter

Claims 30, 39 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 32-37, 41-46 and 48-57 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: prior art references do not teach or render obvious a method of manufacturing a semiconductor device comprising all the steps as claimed in claim 32, claim 35, claim 41, claim 44, claim 50 and claim 54.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien F Tran whose telephone number is (571) 272-1665. The examiner can normally be reached on 8:30AM - 5:00PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/730,986 Page 5

Art Unit: 2811

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt October 17, 2004

THIENTRAN
PRIMARY EXAMINER